

### **REMARKS**

Applicant notes with appreciation the thorough examination embodied in Paper No. 20090819. This amendment is fully responsive thereto.

Claims 1-19, 21, 22, 24-27, and 30-34 are pending in the above identified application.

Claims 1 and 15 are currently amended to recite a plurality of  $n$  separation steps that are washed by a set of buffers ranging from  $C_0$  to  $C_{n-1}$  and then eluted with the set of buffers  $C_1$  to  $C_n$ . The phrase different is removed from claims 1 and 15 as redundant to the washing and eluting steps that create a plurality of different steps. These amendments are fully supported by the specification as filed at *inter alia* paragraphs [0036] to [0038]. As such, no new matter is added by way of amendment.

Claims 5, 19, and 30 are currently correct dependency to a pending claim. No new matter is added by way of amendment.

Currently, claims 1-12, 14-19, 21, 22, 24-25, 27, 30-32, and 34 are rejected under 35 U.S.C. §112, second paragraph as being indefinite.

Claims 1-3, 5-12, 14-17, 19, 21, 22, 24-25, 27, 30-32, and 34 are rejected under 35 U.S.C. § 103(a) as unpatentable over Wagner et al. in view of Gygi et al. (PNAS 2000 97(17):9390-9395) and Kachman et al. (Anal. Chem. 2002 74:1779-1791).

Claims 1-3, 5-6, 8-11, 13, 26, and 33 are rejected under 35 U.S.C. § 103(a) as unpatentable over Wagner et al. in view of Miliotis et al. (J. Chromatography A 2000:886:99-110).

#### **Remarks directed to the rejections under 35 U.S.C. §112, second paragraph.**

Reconsideration and withdrawal of the rejections of all claims under 35 U.S.C. §112, second paragraph is respectfully requested as the claims as currently amended particularly point out and distinctly claims the subject matter Applicant regards as the invention. The claims conclude with the statement that at least one of the plurality of fractions collected in the second

separation step is analyzed. As such, the claims present an analyzing step. Reconsideration and withdrawal of the rejections of all claims under 35 U.S.C. §112, second paragraph are, therefore, respectfully requested.

**Remarks directed to the rejection of claims 1-12, 14-19, 21, 22, 24-25, 27, 30-32, and 34 under 35 U.S.C. § 103(a) as unpatentable over Wagner et al. in view of Gygi et al. and Kachman et al. and the rejection of claims 1-6, 8-11, 13, 26, and 33 as unpatentable over Wagner et al. in view of Miliotis et al.**

Reconsideration and withdrawal of the rejections of all claims under 35 U.S.C. §103 are respectfully requested in view of the current amendments to claims 1 and 15 to recite washing and elution steps with a set of monotonically changing buffers whereby washing is done with buffers  $C_0$  to  $C_{n-1}$  and elution is performed with buffer set  $C_1$  to  $C_n$ . These steps are neither taught nor suggested by the cited prior art. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Applicant incorporates by reference all remarks of record that Wagner fails to teach or suggest all elements of claims 1, 15, or the claims that depend therefrom. In addition, the claimed wash and elution steps as part of the subject invention further provide a never before realized power and resolution to sample analysis. The claimed process is “more reproducible than 2D gels,” [0018] and provides much greater separation and detection capability in a radically shorter time frame and number of steps. Similarly, the claimed process provides “efficiency and speed compared to conventional sequential techniques” such as 2-D gels and MUDpit methods previously known in the art. [0033] More particularly, the claimed method provides a much more rapid and powerful analysis technique than Wagner et al. in that a maximum amount of sample content is retained for analyses in greater concentration and lower contamination, and this is achieved in a mechanically more streamlined and reliable system. As such, the present claims, as currently amended are drawn to a processes that are were not achievable by prior art methods such that they solve the long unmet need of simple and powerful sample analysis, and are therefore non-obvious.

In view of the above amendments and remarks, Applicant submits that a *prima facie* case of obviousness is not satisfied by the combination of Wagner et al. alone or in combination with Gygi et al. and Kachman et al. or in combination with Miliotis et al. in that all elements are neither taught nor suggested by the cited prior art and the claimed process is a powerful advancement in the field of sample analysis. Accordingly, Applicant respectfully requests that the rejections of all the claims under consideration be withdrawn.

**Summary**

Claims 1-3, 5-12, 14-17, 19, 21, 22, 24-25, 27, 30-32, and 34 remain pending in the application. Claims 1, 5, 15, 19, and 30 are currently amended. Each of the pending claims is submitted to be in patentable form and directed to allowable subject matter. Reconsideration and withdrawal of the rejections and the passing of this application to allowance are requested. Should the Examiner have any suggestion as to how to improve the form of any of the pending claims, it is respectfully requested that the undersigned attorney be contacted at the telephone number provided below to resolve any outstanding issues.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 07-1180.

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Respectfully submitted,

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